REMARKS

I. Status of the Claims

Claims 1-21 and 27-32 are withdrawn. Claim 22 has been amended to include certain limitations recited in claim 34, and said limitations have been deleted from claim 34. Thus, no new matter is believed to have been introduced by the present amendments.

II. Rejection Under 35 U.S.C. §112, Second Paragraph

Claim 24 is rejected under 35 U.S.C. §112, second paragraph for allegedly being indefinite for reciting the limitation, ". . . characterized by a modified release of the active ingredient."[1] Applicants traverse on the grounds that the phrase "modified release" is a known term of art, with an accepted meaning understood by those skilled in the art. Accordingly, claim 24 is not indefinite.

The Examiner asserts that the limitation ". . . characterized by a modified release of the active ingredient" recited in claim 24 is unclear because the claim does not explicitly describe what the release is modified from.[2] Applicants note that *Remington*,[3] previously submitted, clearly explains that modified release dosage forms are modified relative to a conventional dosage form.[4]

Furthermore, *Remington* also defines modified release systems, stating that " most *modified-release* delivery systems fall into the following four categories: 1. Delayed-release[;] 2. Extended-release[;] 3. Site-specific targeting[; and] 4. Receptor targeting" (emphasis added). Further, the specification as originally filed supports this definition. For example, at page 9, line 8, it states, "[t]he modified release, *in particular delayed release*," and notes the modified release profiles in Examples 4, 8, and 10. As such, Applicants submit the phrase "modified release" is a term of art readily understood by those skilled in the art.

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[1] Office Action at p. 4.
[2] *Id.*
[3] *See* Remington, THE SCIENCE AND PRACTICE OF PHARMACY 21st Ed. 939-40 (2006); submitted with Applicant's Amendment and Reply dated March 15, 2010.
[4] See, *e.g.*, Remington at p. 940: "All modified-release products share the common goal of improving drug therapy over that achieved with their conventional counterparts."

The Examiner further notes "Applicant argues that the term 'modified release' is a term of the art and is used in Remington." *Id.* at p. 5. Applicants note that *Remington* is ***evidence*** that that those skilled in the art would understand the scope and meaning of the phrase "modified release," not merely an example of the use of the phrase "modified release."

The Examiner also asserts that "Applicants' arguments are unpersuasive because applicant has not defined 'modified release' in their specification."[5]

MPEP § 2171 instructs:

> "There are two separate requirements set forth in [35 U.S.C. § 112 second paragraph]:
>
> (A) the claims must set forth the subject matter that applicants regard as their invention; and
>
> (B) the claims must particularly point out and distinctly define the metes and bounds of the subject matter that will be protected by the patent grant.
>
> The first requirement is a subjective one because it is dependent on what the applicants for a patent regard as their invention. The second requirement is an objective one because it is not dependent on the views of applicant or any particular individual, but is evaluated in the context of whether the claim is definite - *i.e.*, ***whether the scope of the claim is clear to a hypothetical person possessing the ordinary level of skill in the pertinent art.***" Emphasis added.

The phrase "modified release" denotes the various modes of release of a drug from a pharmaceutical dosage form. As evidenced by *Remington*, Applicants submit that the definition of "modified release" is well-known, and would be clear and readily ascertainable by a person of ordinary skill in the art, particularly those skilled in the art of pharmaceutical dosage forms. Furthermore, the absence from the specification of an explicit definition of a claim term is irrelevant since one skilled in the art would understand what was meant by thereby.[6]

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[5] Office Action at p. 4.

[6] *See W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983) at 315; *see*

Accordingly, in view of *Remington*, MPEP § 2171, *W.L. Gore & Associates, Inc. v. Garlock, Inc.* and *Bancorp Services, L.L.C. v. Hartford Life Ins. Co*, the scope of the claim 24 is both clear and definite. As a result, the rejection of claim 24 under 35 U.S.C. § 112, 2nd paragraph as being indefinite is improper, and should be withdrawn.

III. Rejection Under 35 U.S.C. §102(b)

Claims 22, 24-25, and 38 have been rejected over *Tsuchida*.[7] As amended, claim 22 now recites an amount of active ingredient in the claimed microcapsules ranging from 0.2-21%. However, the amounts of active ingredient in the examples of *Tsuchida* fall outside the claimed range. Specifically, Examples 1-3 of *Tsuchida* comprise cores of Celphere (1000 g) coated with 500 g ethyl cellulose and 500 g of active ingredient; Example 4 comprises cores of Celphere (1000 g) coated with 600 g ethyl cellulose and 600 g of active ingredient; and Example 5 comprises cores of Celphere (1000 g) coated with 450 g ethyl cellulose and 600 g of active ingredient. Accordingly, the percentages of active ingredient in Examples 1-5 are 25% (Ex. 1-3), 27% (Ex. 4), and 29% (Ex. 5), well above the maximum value of 21% of the claimed microcapsules.

As a result, *Tsuchida* fails to anticipate the claimed microcapsules. Accordingly, Applicants respectfully request that this rejection be withdrawn.

IV. Rejections Under 35 U.S.C. §103(a)

The present claims are rejected as obvious over combinations of *Tsuchida*, *Banakar*[8], *Breitenbach*[9], *Hsaio*[10] and/or *Alderman*[11]. Applicants respectfully traverse these rejections on the grounds that no combination of the cited references discloses all of the elements of the present claims.

Applicants' claim 22 recites, *inter alia*, "[m]icrocapsules comprising . . . a core

also Bancorp Services, L.L.C. v. Hartford Life Ins. Co., 359 F.3d 1367, 1372, 69 USPQ2d 1996, 1999-2000 (Fed. Cir. 2004); *see also Intellectual Property Development v. UA-Columbia*, 336 F3d 1308 (Fed. Cir. 2003).
[7] US 6,558,700.
[8] U.V. Banakar, 49 *Drugs Pharm Sci* 144 (1992).
[9] US 6,120,802.
[10] US 4,634,587.
[11] US 4,704,285.

having an average particle size ranging from 50 to 1200 μm; and . . . a coacervated polymeric membrane coating said core . . . containing at least one water-soluble active ingredient homogeneously dispersed in said polymeric membrane coating in the form of solid particles… said active ingredient being present in amounts ranging from 0.2% to 21% with respect to the weight of the microcapsule." Accordingly, Applicants' invention requires: (1) the membrane layer is formed by coacervation, and (2) the active ingredient is present in amounts ranging from 0.2% to 21%, with respect to the weight of the microcapsule. These limitations are neither disclosed nor suggested by any of the cited references individually. Accordingly, no combination of the cited references discloses or suggests all the limitation of the present claims, and the Examiner has failed to properly establish a *prima facie* case of obviousness. As a result, the Applicants respectfully request reconsideration and withdrawal of the present obviousness rejections.

Tsuchida* and *Banakar

Claims 33-34 are rejected over *Tsuchida* in view of *Banakar*. Applicants respectfully traverse this rejection on the grounds that no combination of *Tsuchida* and *Banakar* discloses or suggests all the elements of the present claims, and as such, the Examiner has failed to properly establish a *prima facie* case of obviousness.

Tsuchida discloses multiple-unit sustained release tablets including granules comprising a matrix composed of a water-insoluble polymer and an active ingredient.[12] Each and every exemplary granule disclosed by *Tsuchida* employs coating process using a bottom-spray type fluidized bed coater.[13] *Tsuchida* is silent with respect to granules having a membrane layer formed by coacervation. Furthermore, while *Tsuchida* makes no explicit disclosure with respect to the amount of active ingredient in the disclosed granules beyond relative ratios of active ingredient and polymer,[14] each example disclosed by *Tsuchida* has an active ingredient content significantly greater than that required by the present claims (*i.e.*, greater than 21%; *supra*). Accordingly, *Tsuchida* fails to disclose all the limitations of the present claims.

[12] *Tsuchida* at col. 1, ll. 60-61.
[13] *Id.* at col. 5, l. 20 – col. 7, l. 45.

Accordingly, *Tsuchida* suggests higher amounts of active in the described granules, and fluid bed coating to produce those granules, and fails to suggest the present coacervated microcapsules having a lower active ingredient content (*i.e.*, amounts ranging from 0.2% to 21% of the microcapsule).

Banakar fails to remedy the deficiencies of *Tsuchida*.

Banakar relates to active particle size in drug formulations. However, *Banakar* is silent with respect to microcapsules having a membrane formed by coacervation, much less microcapsules as recited in the present claims having (1) a membrane layer is formed by coacervation, and (2) an active ingredient is present in amounts ranging from 0.2% to 21% with respect to the weight of the microcapsule. Therefore, *Banakar* fails to remedy the deficiencies of *Tsuchida* with respect to the present claims, and no combination of *Tsuchida* and *Banakar* discloses or suggests the present microcapsules. Thus, the Examiner has failed to properly establish a *prima facie* case of obviousness. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

Tsuchida* and *Breitenbach

Claim 35 is rejected over *Tsuchida* in view of *Breitenbach*. Applicants respectfully traverse this rejection on the grounds that no combination of *Tsuchida* and *Breitenbach* discloses or suggests all the elements of the present claims, and as such, the Examiner has failed to properly establish a *prima facie* case of obviousness.

As discussed above, *Tsuchida* fails to disclose or suggest the present coacervated microcapsules. *Breitenbach* fails to remedy the deficiencies of *Tsuchida*.

Breitenbach discloses a process for producing multilayer, solid drug forms for oral or rectal administration, which comprises coextrusion of at least two compositions which in each case comprise a thermoplastic, pharmacologically acceptable polymeric binder which is soluble or swellable in a physiological environment, and at least one of which contains a pharmaceutical active ingredient, and shaping the coextruded multilayer material to the required drug form.[15]

[14] *Id.* at col. 3, ll. 33-37.
[15] *See* Abstract of *Breitbach*.

However, *Breitenbach* is silent with respect to microcapsules having a membrane formed by coacervation, much less microcapsules as recited in the present claims having (1) a membrane layer formed by coacervation, and (2) an active ingredient present in amounts ranging from 0.2% to 21% with respect to the weight of the microcapsule. Therefore, *Breitenbach* fails to remedy the deficiencies of *Tsuchida* with respect to the present claims, and no combination of *Tsuchida* and *Breitenbach* discloses or suggests the present microcapsules. Thus, the Examiner has failed to properly establish a *prima facie* case of obviousness. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

Tsuchida, Hsiao and Alderman

Claims 26 and 36-37 are rejected over *Tsuchida* in view of *Hsiao* and *Alderman*. Applicants respectfully traverse this rejection on the grounds that no combination of *Tsuchida, Hsiao* and *Alderman* discloses or suggests all the elements of the present claims, and as such, the Examiner has failed to properly establish a *prima facie* case of obviousness.

As discussed above, *Tsuchida* fails to disclose or suggest the present coacervated microcapsules. *Hsiao* fails to remedy the deficiencies of *Tsuchida*.

Hsiao discloses a sustained release quinidine dosage form made from a plurality of pellets, each pellet including a quinidine containing coating over a nonpareil seed, with ***a further coating*** (*i.e.*, on top of the active) of about 5 to about 15% by weight of a mixture of about 1.5 to about 9 parts by weight ethylcellulose to about 1 part by weight hydroxypropylcellulose.[16] However, *Hsiao* is silent with respect to coacervation. In addition, the pellets disclosed by *Hsiao* are coated with ***more than*** an equal amount by weight of active (*i.e.*, quinidine) compound.[17] Thus, *Hsiao* fails to disclose microcapsules having a membrane formed by coacervation, much less microcapsules as recited in the present claims having (1) a membrane layer formed by coacervation, and (2) an active ingredient present in amounts ranging from 0.2% to 21% with respect to the weight of the microcapsule. Therefore, *Hsiao* fails to remedy the deficiencies of *Tsuchida* with respect to

[16] *See* Abstract of *Hsiao*; emphasis added.
[17] *See Hsiao* at col. 1, ll. 27-30; emphasis added.

the present claims.

Alderman fails to remedy the deficiencies of *Tsuchida* and *Hsiao*.

Alderman discloses solid tablets of a therapeutically active composition which exhibit sustained release properties when compressed with a fine particle sized hydroxypropyl cellulose ether composition.[18] However, *Alderman* is silent with respect to microcapsules having a membrane formed by coacervation, much less microcapsules as recited in the present claims having (1) a membrane layer is formed by coacervation, and (2) an active ingredient is present in amounts ranging from 0.2% to 21%, with respect to the weight of the microcapsule. Therefore, *Alderman* fails to remedy the deficiencies of *Tsuchida* and *Hsiao* with respect to the present claims, and no combination of *Tsuchida* and *Hsiao* and *Alderman* discloses or suggests the present microcapsules. Thus, the Examiner has failed to properly establish a *prima facie* case of obviousness. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

[18] See Abstract of *Alderman*.

In view of the foregoing, Applicants respectfully submit that no further impediments exist to the allowance of this application and, therefore, request an indication of allowability. However, the Examiner is requested to call the undersigned if any questions or comments arise.

Except for issue fees payable under 37 C.F.R. 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account 50-1283. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. 1.136(a)(3).

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